Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1.   (Currently amended) A method of data object transformation, the method including:

receiving a message from a communications line, the message including one or more data objects of a first object type, wherein the message is in a first communications format;

converting the message from the first communications format to a second communications format;

converting the one or more data objects from the first object type to a second object type, wherein the one or more data objects are converted using a first set of one or more transformation classes, each of the one or more transformation classes generated using mapping rules; and

transmitting the ~~converted~~ one or more second object type data objects to an application.

2.   (Original) A method according to claim 1, wherein the communications line is messaging middleware, and the first communications format is a middleware-dependent format, and the second communications format is a middleware-independent format.

3.   (Original) A method according to claim 1, wherein each of the one or more data objects is a Java object.

4.   (Original) A method according to claim 1, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

5.   (Original) A method according to claim 1, further including:

registering the application with the communications line; and

transmitting high-level function calls to the application.

6.   (Currently amended) A method according to claim 1, the method further including:

receiving a second message from the application, the second message including one or more data objects of the second object type;

converting the one or more data objects from the second object type to the first object type, wherein the one or more data objects are converted using a second set of one or more of the transformation classes;

generating a communications line dependent message, the communications line dependent message including the ~~converted~~ one or more first object type data objects; and

transmitting the communications line dependent message to the communications line.

7.   (Canceled)

8.   (Canceled)

9.   (Canceled)

10.   (Canceled)

11.   (Original) A method of data object transformation, the method including:

generating a first object model and a second object model, the first object model including a plurality of data objects of a first object type, and the second object model including a plurality of data objects of a second object type;

storing the first and second object models in one or more memories;

generating transformation mapping rules;

generating a plurality of transformation classes using the first and second object models and the transformation mapping rules;

receiving one or more data objects;

converting the received one or more data objects, using the transformation classes, from (1) the first object type to the second object type; or (2) from the second object type to the first object type; and

transmitting the converted one or more data objects.

12.   (Original) A method according to claim 11, wherein each of the one or more data objects is a Java object.

13.   (Original) A method according to claim 11, wherein the first object model is a domain object model and the second object model is an application-specific object model.

14.   (Original) A method according to claim 11, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

15.   (Original) A method according to claim 11, wherein the one or more data objects are receive from messaging middleware.

16.   (Original) A method according to claim 11, wherein the one or more data objects are receive from an application, the application coupled to a communications line.

17.   (Currently amended) A system for data object transformation, the system including:

one or more processors;

one or more memories coupled to the one or more processors; and

program instructions stored in the one or more memories, the one or more processors being operable to execute the program instructions, the program instructions including:

receiving a message from a communications line, the message including one or more data objects of a first object type, wherein the message is in a first communications format;

converting the message from the first communications format to a second communications format;

converting the one or more data objects from the first object type to a second object type, wherein the one or more data objects are converted using a first set of one or more transformation classes, each of the one or more transformation classes generated using mapping rules; and

transmitting the ~~converted~~ one or more second object type data objects to an application.

18.   (Original) A system according to claim 17, wherein the communications line is messaging middleware, and the first communications format is a middleware-dependent format, and the second communications format is a middleware-independent format.

19.   (Original) A system according to claim 17, wherein each of the one or more data objects is a Java object.

20.   (Original) A system according to claim 17, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

21.   (Currently amended) A system according to claim 17, wherein the program instructions further include:

receiving a second message from the application, the second message including one or more data objects of the second data format;

converting the one or more data objects from the second object type to the first object type, wherein the one or more data objects are converted using a second set of one or more of the transformation classes;

generating a communications line dependent message, the communications line dependent message including the ~~converted~~ one or more first object type data objects; and

transmitting the communications line dependent message to the communications line.

22.   (Original) A system for data object transformation, the system including:

a communications line;

a transformation adapter coupled to the communications line, the transformation adapter including:

an assembly/disassembly layer configured to convert messages from a first communications format to a second communications format;

a transformation layer configured to convert data objects from a first object type to a second object type using one or more transformation classes; and

a method invocation layer;

a transformation class generator coupled to the transformation adapter, the transformation class generator configured to generate the one or more transformation classes using transformation mapping rules; and

an application coupled to the transformation adapter, wherein the application transmits data to and receives data from the method invocation layer.

23.   (Original) A system according to claim 22, wherein the communications line is messaging middleware.

24.   (Original) A system according to claim 22, wherein each of the one or more data objects is a Java object.

25.   (Original) A system according to claim 22, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

26.   (Original) An apparatus for data object transformation, the apparatus including:
        means for generating a first object model and a second object model, the first object model including a plurality of data objects of a first object type, and the second object model including a plurality of data objects of a second object type;
        means for storing the first and second object models;
        means for generating transformation mapping rules;
        means for generating a plurality of transformation classes using the first and second object models and the transformation mapping rules;
        means for receiving a one or more data objects;
        means for converting the received data objects, using the transformation classes, from the first object type to the second object type; and
        means for transmitting the converted one or more data objects.